

## **Determination of Public Land (Rangeland) Health for 61005 TUCKER PLACE**

The Record of Decision (ROD) for the New Mexico Standards for Public Land Health and Guidelines for Livestock Grazing Management (dated January 2001) adopted three Standards for Public Land Health. These are (1) Upland Sites Standard, (2) Biotic Communities, Including Native, Threatened, Endangered, and Special Status Species Standard and (3) Riparian Sites Standard.

The ROD also established a process for the BLM Field Offices for implementation. Through a public participation process, the Roswell Field Office developed and adopted indicators to use in conjunction with existing monitoring data to assess these standards.

Field assessment worksheets and other available data that evaluate the local indicators were completed for this allotment. Based on these assessments, it is my determination that public land within Tucker Place allotment #61005, meets the (1) Upland Sites standard and (2) Biotic Communities, including Native, Threatened, Endangered, and Special Status Species standard. There are no public land Riparian areas on this allotment, therefore this standard was not addressed.

/s/ Eddie Bateson

8/8/2006

Field Manager

Date

# Standards of Public Land Health

## Evaluation of 61005 TUCKER PLACE Allotment

### [ 10/15/2005 ]

The Roswell Field Office conducted a rangeland health assessment at one (1) study site within the Tucker Place allotment #61005. This assessment evaluated Soil/Site Stability, Hydrologic Function and Biotic Integrity indicators within each study site location and surrounding vicinity. Existing monitoring data was incorporated into and in support of these field assessments. A summary of each assessment is attached and shown in the following table

Study Area or Assessment Area	UPLAND			BIOTIC			RIPARIAN		
	Meets	Monitor an Indicator	Does Not Meet	Meets	Monitor an Indicator	Does Not Meet	Meets	Monitor an Indicator	Does Not Meet
61005-SEC 20-A004	X			X			N/A		

Twenty-two (22) indicators for Rangeland Health were evaluated for public land on Tucker Place allotment #61005. Ten of these assessed soil site stability, 11 hydrologic function and 13 biotic integrity. These qualitative assessments in conjunction with quantitative information gathered from previous data collected on one location were utilized to assess rangeland health of public land within this allotment. This allotment is a "C" (custodial) category due to the small amount of public land present.

Located in Roosevelt county east of Kenna, NM, this allotment is in a HP-3 Sandhills ecological site. This site encompasses 880 acres/356 hectares in a Tivoli soil phase. This soil consists of deep loose sand in northern and southern parts of the county. Relief is rolling and dunelike with sand that is noncalcareous and permanently moist below a depth of 24 in/61 cm. Slopes are 5 to 25 percent. Indicators assessed ranged in None to Slight and Slight to Moderate categories indicating very slight deviations and only minor range of variability. Bare ground however rated Moderate with a current estimate of 45 percent, exceeding the long-term average of 25 percent. Most all soil and hydrological attributes provide for site protection. Yucca (*Yucca* spp.) is the only shrub of concern but is only found in isolated areas. Blue grama (*Bouteloua gracilis*), dropseed (*Sporobolus* spp.) little bluestem (*Schizachyrium scoparium*) and threeawn (*Aristida* spp.) were the grasses observed with no big clumps of sand bluestem (*Andropogon hallii*) found which provides nesting cover for lesser prairie chicken (*Tympanuchus pallidicinctus*). The mixture of grass/shinnery oak (*Quercus havardii*) presently is 60/40. A ratio of 55:45 is on average ideal for this species. A moderate amount/portion of habitat is in less than satisfactory condition rating special status and wildlife habitat indicators Moderate.

In the professional opinion of the Assessment Team, public land within Tucker Place, allotment #61005 meets Upland and Biotic standards. There are no Riparian areas within

this allotment therefore this standard was not addressed. See site notes and recommendations for further information pertinent to this allotment.

**Recommendations:** Current management should continue for this allotment. Evaluation should be made of the absence of sand bluestem which is the grass of choice for lesser prairie chicken nesting cover. Continued monitoring for this species is the recommendation here.

RFOs Upland and Biotic Standard Assessment Summary Worksheet						
SITE 61005-SEC 20-A004						
Legal Land Desc	SENE 20 0070S 0320E Meridian 23		Acreage		880	
Ecosite	077CY057NM SANDHILLS HP-3		Photo Taken		Y	
Watershed	12050001080 LINGO					
Observers	ARTHUN/MOE		Observation Date		12/27/2005	
County Soil Survey	NM041 ROOSEVELT		Soil Var/Taxad			
Soil Map Unit	Tf		Soil Taxon Name		TIVOLI	
Texture Class	NM041 FS		Soil Phase		TIVOLI	
Texture Modifier	NM041 FINE SAND					
Observed Avg Annual Precipitation			Observed Avg Growing Season Precipitation			
NOAA Annual Precipitation	19.55		NOAA Growing Season Precipitation		15.86	
NOAA Avg Annual Precipitation	15.73		NOAA Avg Growing Season Precipitation		13.34	
Disturbances and Animal Use:	No livestock observed at present.					
<b>Part 2. Attributes and Indicators</b>						
		Departure from Ecological Site Description/Ecological Reference Areas				
Attribute	Indicators	Extreme	Moderate to Extreme	Moderate	Slight to Moderate	None to Slight
S H	Rills					X
Comments:						
S H	Water Flow Patterns				X	
Comments:						
S H	Pedestals and/or Terracettes				X	
Comments:						
S H	Bare Ground			X		
Comments:	Bare ground estimated currently at 40-45%.					
S H	Gullies				X	
Comments:						

S	Wind-scoured, Blowouts, and/or Deposition Areas				X	
Comments:						
H	Litter Movement				X	
Comments:						
S H B	Soil Surface Resistance to Erosion				X	
Comments:						
S H B	Soil Surface Loss or Degradation				X	
Comments:						
H	Plant Community Composition and Distribution Relative to Infiltration and Runoff					X
Comments:						
S H B	Compaction Layer					X
Comments:						
B	Functional/Structural Groups				X	
Comments:						
B	Plant Mortality/Decadence					X
Comments:						
H B	Litter Amount				X	
Comments:	Current estimate is 55%.					
B	Annual Production				X	
Comments:	Annual production is now estimated at 700 lbs/ac or kg/ha.					
B	Invasive Plants					X
Comments:						
B	Reproductive Capability of Perennial Plants				X	
Comments:						
S	Physical/Chemical/Biological Crusts				X	
Comments:	Physical crusts with some biological observed.					
B	Wildlife Habitat			X		
Comments:						
B	Wildlife Populations				X	

Comments:						
B	Special Status Species Habitat			X		
Comments:						
B	Special Status Species Populations				X	
Comments:						
<b>Part 3. Summary</b>						
A. Indicator Summary - Each of the indicators are associated with one or more of the attributes below. An indicator is placed in a category (columns) above and summed for each of the Standard Attributes.						
Standard Attribute		Extreme	Moderate to Extreme	Moderate	Slight to Moderate	None to Slight
S	Soil	0	0	1	7	2
H	Hydrologic	0	0	1	7	3
B	Biotic	0	0	2	8	3
B. Attribute Summary. In this table, the Extreme and Extreme to Moderate columns in the table above are merged for the <i>Does not Meet</i> column, Moderate becomes <i>May Need More Info</i> , and Slight to Moderate and None to Slight merge to form the <i>Meets</i> columns. Values from the table are summarized below. Space is provided for rationale of the determination. This space should most certainly be used when the determination by the ID team conflicts with the summarized values. Provide the sources of information that lead to the determination. X out the appropriate box for each attribute to denote final agreed upon determination by the ID team.						
Attribute	Rationale	Does Not Meet	May Need More Info	Meets		
Soil		0	1	9		
Hydrologic		0	1	10		
Biotic		0	2	11		
Site Notes: No big clumps of grass exist ( Sand bluestem). A mixture of grasses and shinnery at a ratio of 55:45 is what is observed. Yucca is the only invader. Blue grama, dropseed and little bluestem are the other graminoids on site.						

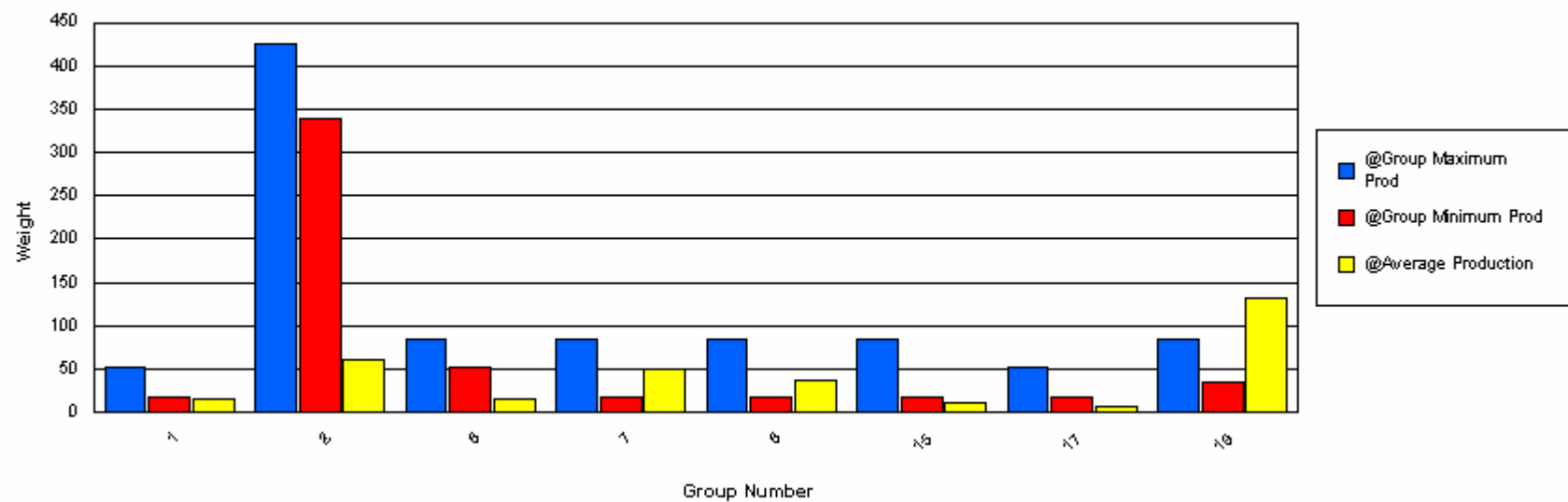
# Functional / Structural Groups

## Report Parameters

SITE NAME LIKE 61005-SEC 20-A004  
 ON/AFTER 10/01/1990  
 ON/BEFORE 09/30/2005  
 MIN LBS TO GRAPH 1  
 SELECTED ECOSITE 077CY057NM

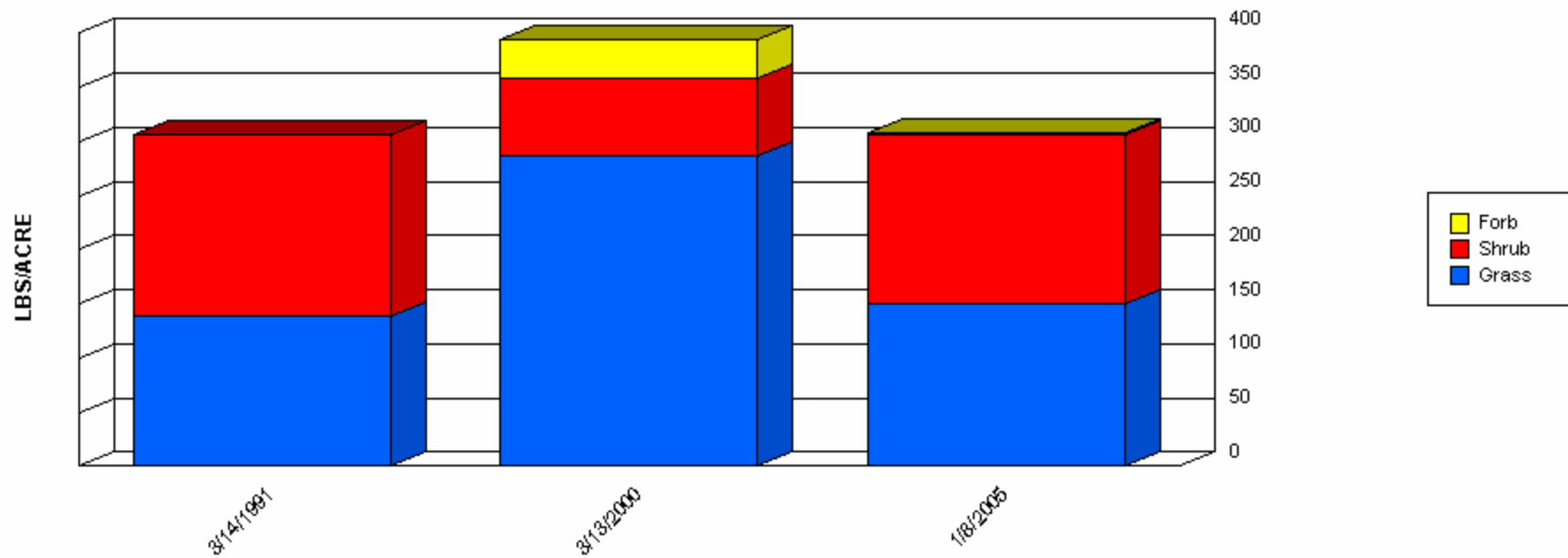
Group	Plant Type	Species	Low Wt Allowed	High Wt Allowed	Minimum	Maximum	Average	STDEV
1	Grass	ANHA	17	51	9.50	21.85	14.81	5.19
2	Grass	SCSC	340	425	15.83	107.52	60.96	37.45
6	Grass	PAST6	51	85	3.33	14.37	8.85	5.52
6	Grass	STNE2	51	85	0.00	11.73	5.87	5.87
7	Grass	BOHI2	17	85	12.91	21.41	17.16	4.25
7	Grass	EROX	17	85	0.67	17.60	9.14	8.47
7	Grass	DICOC	17	85	14.58	15.93	15.26	0.55
7	Grass	SPCR	17	85	0.00	12.74	7.38	5.39
8	Grass	ARIST	17	85	0.00	66.96	36.58	27.69
15	Forb	ERIOG	17	85	0.00	23.32	11.66	11.66
17	Forb	AAFF	17	51	0.00	11.37	5.68	5.68
19	Shrub	QUHA3	34	85	65.40	167.40	127.41	44.46
19	Shrub	YUGL	34	85	0.00	6.67	3.33	3.33

Group	Plant Type	Species	Low Wt Allowed	High Wt Allowed	Minimum	Maximum	Average	STDEV
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## Production Lbs/Acre Trends

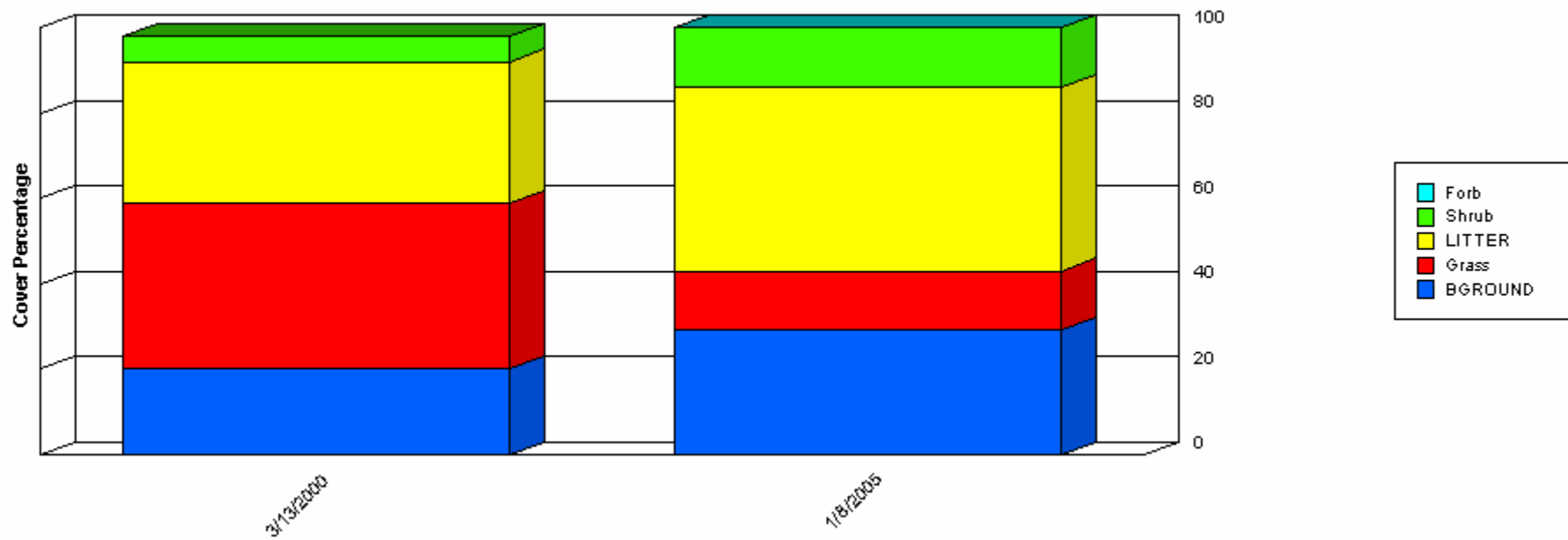


	3/14/1991	3/13/2000	1/8/2005
Forb	0.00	34.69	0.70
Grass	139.12	286.78	150.01
Shrub	167.40	72.07	156.67
Total	306.52	393.54	307.38

## Report Parameters

SITE NAME LIKE 61005-SEC 20-A004

# Ground Cover Trends



	3/13/2000	1/8/2005
BGROUND	20.00	29.00
Forb	0.00	0.00
Grass	39.00	14.00
LITTER	33.00	43.00
Shrub	6.00	14.00
Total	98.00	100.00

# Robel Pole Summary over Time Report

## Report Parameters

SITE NAME LIKE 61005-SEC 20-A004

ON/AFTER 10/1/2004

ON/BEFORE 9/30/2006

Primary Obstructions 61005-SEC 20-A004 61005-SEC 20-A004

1/19/2006 1/8/2005

Flag Stations 0 0

% Hits % Hits

BGROUND 14.70% 28.00%

LITTER 52.00% 49.30%

ARPU9 4.00% 6.70%

BOHI2 2.70% 2.70%

DICOC 5.30% 4.00%

SCSC 1.30% 0.00%

SPFL2 2.70% 1.30%

QUHA3 16.00% 8.00%

YUGL 1.30% 0.00%

Secondary Obstructions 61005-SEC 20-A004 61005-SEC 20-A004

1/19/2006 1/8/2005

Percent Avg Ht Percent Avg Ht

CRJA2 4 1 0 0

ERAN4 9.3 10 0 0

GUTE2 2.7 2.5 0 0

HECO 1.3 4 0 0

ANHA 5.3 6.2 8 5.4

ARPU9 25.3 5.9 41.3 4.6

BOHI2 5.3 2.5 9.3 3.3

DICOC 20 3.8 13.3 2.9

EROX 0 0 1.3 2

LECO 0 0 6.7 2.2

SCSC 17.3 6.3 8 6

SPFL2 12 7.9 25.3 5.1

STCO4 0 0 2.7 2.5

ARFI2 1.3 13 0 0

OPMA2 0 0 1.3 1

QUHA3 82.67 7.31 69.3 6.4

YUGL 5.3 15.9 2.7 19.5

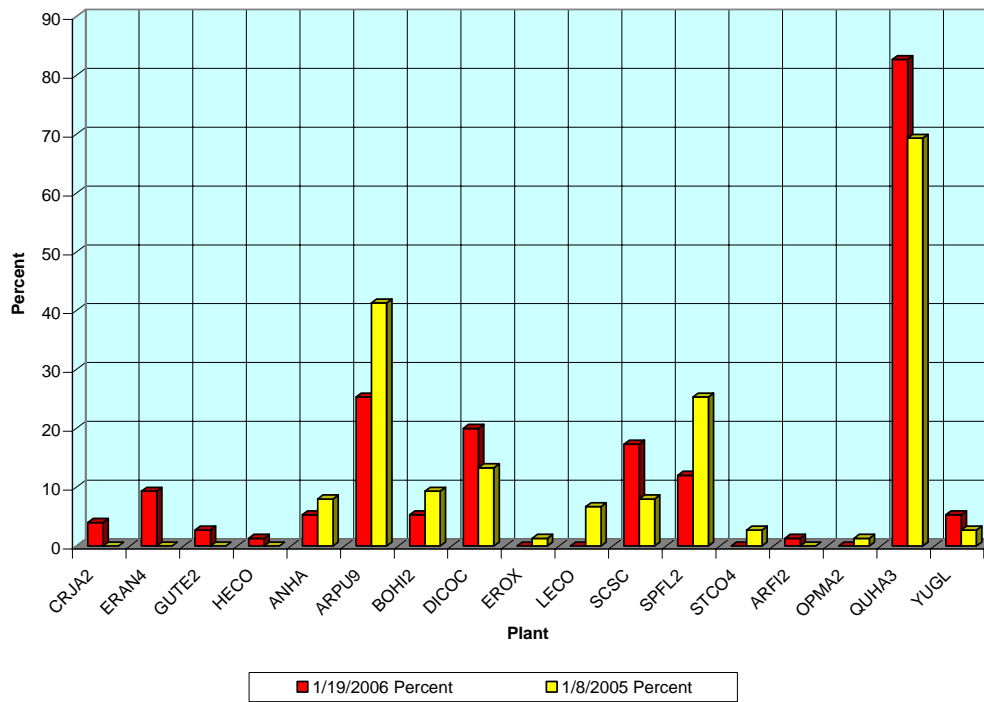
1/19/2006 1/8/2005

Avg Forb Ht 4.38 0.00

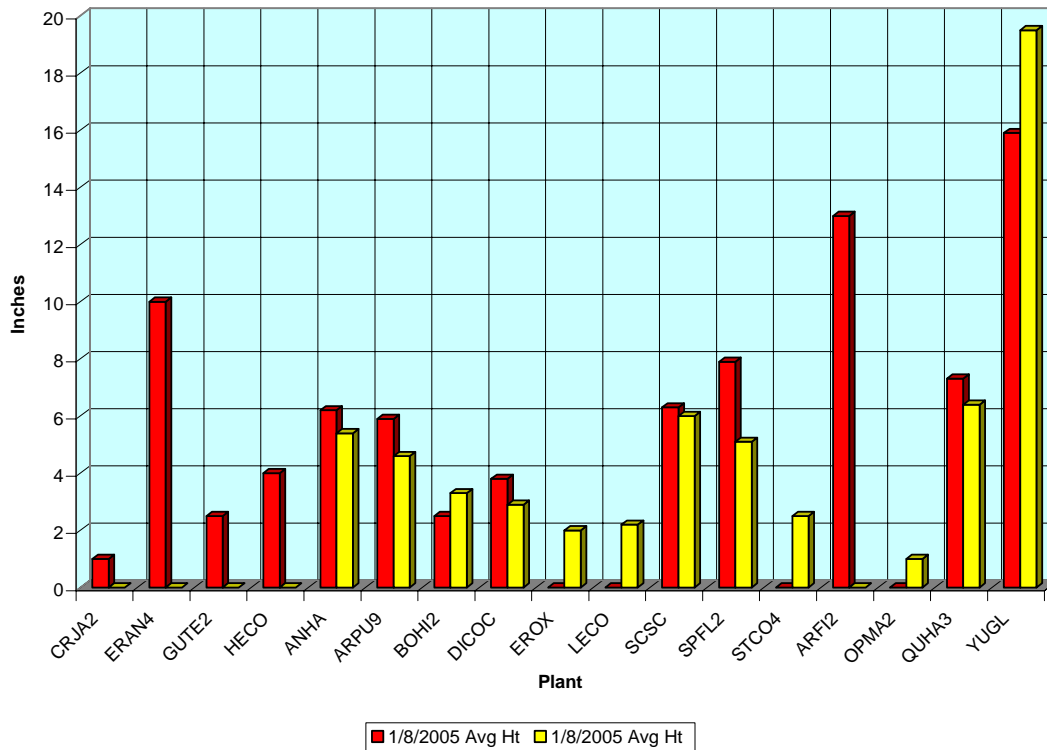
Avg Grass Ht 5.43 3.78

Avg Shrub Ht 12.07 8.97

Plant Composition



Plant Visual Obstruction Height



Plant Type Average Visual Obstruction Height

